



Nuclear Techniques for Global Development

How the IAEA supports Member States through coordinated research activities and technical cooperation projects

The IAEA's delivery mechanisms for the safe application of nuclear technology

The International Atomic Energy Agency (IAEA) works with its Member States and multiple partners worldwide to support the safe, secure and peaceful application of nuclear technologies, using two related mechanisms: coordinated research projects (CRPs) and technical cooperation projects. Activities under these mechanisms foster collaboration between Member States and forge human and institutional capacity in countries so that they can safely utilize nuclear technologies to address key development challenges. CRPs can lead to technical cooperation projects and, in some cases, technical cooperation projects can trigger the establishment of CRPs.

What is a coordinated research project?

CRPs are an important IAEA mechanism for organizing international research work to achieve specific research objectives consistent with the IAEA programme of work. CRPs are designed to encourage the acquisition and dissemination of new knowledge about the use of nuclear technologies and isotopic techniques. By inviting institutions to collaborate on a well defined topic, they bring together researchers in both developing and industrialized countries to address a problem of common interest.

CRPs not only further nuclear knowledge, they also improve research capacity in Member States. This is especially important for developing countries that would otherwise be unable to undertake extensive research projects.



The results of CRPs are available, free of charge, to scientists, engineers and other users from all Member States. The results are often of immediate, direct benefit to groups outside the scientific community, for example, farmers or hospital patients.

CRPs are initiated by IAEA scientific experts. The expert proposes a research theme that stimulates and coordinates research by both scientists in the IAEA and different research institutions in Member States. An IAEA technical project officer is designated, followed by a call for research contract and agreement proposals. Once the selection of proposals is completed, the IAEA technical project officer liaises with the chief scientific investigators from the different research institutions involved in order to develop and manage the research programme. CRPs normally have a duration of 3 to 5 years.

What is a technical cooperation project?

The IAEA's technical cooperation programme is designed to build and develop Member State capacities in the peaceful application of nuclear science and technology for socioeconomic development. Through national, regional and interregional projects in a range of fields, the programme supplies Member States with training and education, fellowships, scientific visits, expert advice and equipment, and contributes to the achievement of major sustainable development priorities. The programme, thus, provides Member States with the skills and equipment necessary for the safe, sustainable establishment and application of nuclear technology and proven nuclear techniques in a country or region.



Proposals for technical cooperation projects are made by Member States working in partnership with the IAEA, and are developed into a biennial programme.

Projects can run for between two to four years. Technical cooperation projects are developed using the logical framework approach, a methodology for results based management. Every technical cooperation project must meet the IAEA's central criterion: it must address an area of real need in which there is a national programme enjoying strong government support; and the nuclear technology proposed must hold a comparative advantage or complement other intervention techniques.

The technical cooperation programme is approved by the IAEA Board of Governors.

From research to action

While not all CRPs lead to technical cooperation projects, the two are complementary. CRPs offer Member States the ability to develop cutting edge technologies and to undertake research in nuclear techniques through collaboration between their respective research institutions and IAEA experts. By advancing national knowledge and expertise in a particular field, Member States are better equipped to carry out technical cooperation projects.

CRP findings, once tested and proven, can be applied practically through technical cooperation projects. This moves scientific research and development out of the laboratory and into the field, allowing the IAEA to help Member States implement new methodologies expediently, and ensuring that countries and their populations benefit promptly from the application of new scientific discoveries.

